

10/585399

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number  
**WO 2005/069863 A2**

(51) International Patent Classification: Not classified

(21) International Application Number:  
PCT/US2005/001233

(22) International Filing Date: 13 January 2005 (13.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/536,535 15 January 2004 (15.01.2004) US

(71) Applicant (for all designated States except US): **SILICON CORE TECHNOLOGY, INC.** [US/US]; Suite 210, 830 Hillview Court, Milpitas, CA 95035 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **LI, Eric, I/k/a LI, honghua** [US/US]; 422 Sutterwind Drive, Milpitas, CA 95035 (US).

(74) Agent: **SCHREIBER, Donald, E.**; P.O. Box 2926, Kings Beach, CA 96143-2926 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

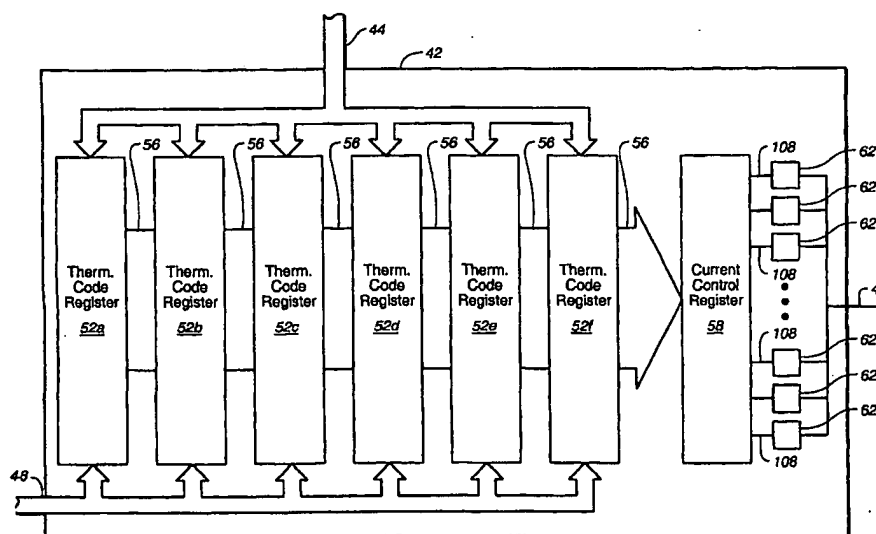
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HIGH PERFORMANCE DVD WRITING CURRENT CIRCUIT



(57) Abstract: A writing current circuit (42) supplies a controlled electrical current to a laser diode (34) for recording data swiftly onto a DVD (16). A plurality of thermometer code registers (52) respectively store numerical values. A current control register (58) receives a numerical value from one of the thermometer code registers (52). Serial data specifies a sequence in which individual thermometer code registers (52) supply values to the current control register (58) thereby causing the writing current circuit (42) to supply a particular electrical current waveform to the laser diode (34). A plurality of current sources (62) respectively receive a single output signal from the current control register (52) which activates or deactivates individual current sources (62) for supplying a particular quantity of current to the laser diode (34).

WO 2005/069863 A2